

**Remarks**

Claims 1, 2 and 6 to 8 were amended as indicated. The amendments were made to reformat the claim language so as to more clearly recite the subject matter that is being claimed. In addition, claim 2 has been amended to recite a step that involves the removal of any remaining hydrogen fluoride. Support for this amendment may be found in the specification, *inter alia*, at paragraph [0046] of the published application. No new matter has been introduced by any of the amendments.

**1. Rejection under 35 U.S.C. § 102(b)**

Claims 1 to 5 are rejected as allegedly being anticipated by U.S. Patent 3,907,913 to Kemp ("Kemp").

Applicants respectfully disagree with this rejection. Kemp teaches isomerization of selected hydrocarbons using an acidic catalyst, wherein the acidic catalyst is a supported hydrofluoric acid-antimony pentafluoride (HF-SbF<sub>5</sub>) (see, *e.g.*, the abstract; col. 3, lines 32-33; col. 4, lines 16-18, 51-52, 61-62, Examples 1 and 2, *etc.*). There is no teaching or suggestion in Kemp of using a catalyst that lacks hydrofluoric acid as a component.

In contrast, Applicants' claim 1 does not recite a hydrofluoric acid-containing catalyst, but rather SbCl<sub>x</sub>F<sub>5-x</sub> supported on porous aluminum fluoride. A reading of Kemp indicates that the described HF-SbF<sub>5</sub> catalyst is prepared at temperatures that are sufficiently low to maintain hydrofluoric acid in solution (see, *e.g.*, Example 1 of Kemp) and is intended to be used at low temperatures "since it has been found that the temperatures above 80°F, and especially above 90°F, can contribute to increased deactivation rate for the isomerization catalyst used in the present invention" (col. 5 of Kemp, lines lines 20-23). These mild conditions are likely necessary to prevent decomposition of the Kemp catalyst through loss of the relatively volatile hydrofluoric acid component.

Further, Examples 1 and 2 of Kemp teach that the isomerization using the HF-SbF<sub>5</sub> catalyst takes place in solution, indicating that the Kemp catalyst is essentially a porous solid support impregnated with a HF-SbF<sub>5</sub> solution. Thus, Kemp clearly emphasizes the necessity of

hydrofluoric acid as a component in the catalyst for the successful isomerization of selected hydrocarbons.

Although a step in the preparation of the supported  $\text{SbCl}_x\text{F}_{5-x}$  compounds claimed by Applicants involves exposure to hydrofluoric acid, the hydrofluoric acid is present in the gas phase due to the high reaction temperatures and the resulting  $\text{SbCl}_x\text{F}_{5-x}$  compounds are subjected to prolonged drying at elevated temperatures (typically in the presence of an inert gas) to ensure that any remaining hydrofluoric acid is removed.

At least for the above-discussed reasons, Kemp does not anticipate Applicants' claims 1 to 5. Accordingly, Applicants request that this rejection be withdrawn.

**2. Objections to Claims 6 to 8**

Claims 6 to 8 are objected to as being dependent on a rejected base claim, but are indicated as being allowable if rewritten in independent form, including all of the limitations of the base claim and any intervening claims.

Applicants believe that claims 1 to 5 are in condition for allowance and therefore request that this objection be withdrawn.

**3. Conclusion**


The foregoing amendments and remarks are being made to place the application in a condition for allowance. Applicants respectfully request reconsideration and the timely allowance of the pending claims. Should the Examiner find that an interview would be helpful to further prosecution of this application, he is invited to telephone the undersigned at his convenience.

**Except** for issue fees payable under 37 C.F.R. 1.18, the Commissioner is hereby authorized by this paper to charge any additional fees during the entire pendency of this application including fees due under 37 C.F.R. §§ 1.16 and 1.17 which may be required, including any required extension of time fees, or to credit any overpayment to Deposit Account 50-0310.

This paragraph is intended to be a **Constructive Petition for Extension of Time** in accordance with 37 C.F.R. 1.136(a)(3).

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Respectfully submitted  
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